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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/282,748	03/31/1999	HYONG S. KIM	FORE-39	9050

7590 08/08/2002

ANEL M SCHWARTZ  
ONE STERLING PLAZA  
SUITE 304  
201 N CRAIG STREET  
PITTSBURGH, PA 15213

EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 08/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/282,748

Applicant(s)

KIM ET AL.

Examiner

PHUC H TRAN

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asano (U.S. Patent No. 6240102 B1) in view of Ganmukhi et al. (U.S. Patent No. 5850399).

- With respect to claims 1, 3-6, 9-11, 13, & 18, Asano teaches an ATM communication system (e.g. Fig. 2 shows) comprising a source which produces traffic for connections having known traffic characteristics and unknown traffic characteristics (e.g. ATM networks has four

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service categories CBR, VBR, ABR and UBR); a network on which traffic travels, the source connected to the network, the source sends the traffic having known traffic characteristics and unknown traffic characteristics onto the network (e.g. data transmits from terminal a to b in Fig. 2); and a destination which is connected to the network and receives the traffic having known traffic characteristics and unknown traffic characteristics (e.g. terminal b receives data have CBR, VBR, ABR or UBR). Asano fails to teach the unknown traffic includes weighted priorities. Ganmukhi teaches UBR with many classes, which bases on the data information (Fig. 2 blocks 170, 180). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the method of assignment the UBR into difference class or weight priorities that bases on the priority of data for transmitting data with QoS.

- With respect to claim 2, Asano discloses a switch connected to the network, which switches the traffic from the source to the destination (e.g. block 301 in Fig. 3).

- With respect to claims 7, 16, & 22, Asano teaches the traffic known traffic characteristics is ABR, CBR, VBR or a combination of the same (e.g. col. 1, lines 22-25).

- With respect to claims 8 & 20, Asano also discloses a signaling message that identifies to switches of the network the weight of each UBRw VC (col. 4, lines 39-45).

- With respect to claims 12, 17, 19, 21, & 23-24, Asano teaches a switch for switching traffic on an ATM network from a source to a destination (e.g. Fig. 2 shows) comprising: a mechanism receives traffic for connections having unknown traffic characteristics (e.g. system for routing a UBR connection); a mechanism for transmitting the traffic for connections to the network, the transmitting mechanism connected to the receiving mechanism (e.g. data transmits

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from terminal a to b in Fig. 2). Asano fails to teach the traffic includes traffic with weighted priorities and traffic without weighted priorities; and a scheduler for scheduling when the connections having traffic with unknown characteristics having weighted priorities are to be transmitted to the network, the scheduler connected to the transmitting mechanism and the receiving mechanism. Ganmukhi teaches UBR with many classes, which base on the data information (Fig. 2 blocks 170, 180) and the scheduler schedules information data to transmit to the network by utilizing weighted round robin (col. 5, lines 6-11). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the method of assignment the UBR into difference class or weight priorities that bases on the priority of data for transmitting data with QoS and the round robin scheduler into Asano's invention for fairly and top down transmit the information data between source and destination.

- With respect to claim 14, Asano disclose including a memory for storing the connections, the memory connected to the receiving mechanism, the scheduler and the transmitting mechanism (block 304 in Fig. 3).

- With respect to claim 15, Asano also teaches wherein the memory includes buffers, which are allocated according to the VC, weight to give higher priority to the VCS with higher weight (e.g. Fig. 4 & 5).

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Radhakrishnan et al. (U.S. Patent No. 6049526) discloses enhanced integrated rate based available bit rate scheduler.

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- Fan et al. (U.S. Patent No. 6104698) discloses asynchronous transfer mode exchange system and priority control method.
- Gemar (U.S. Patent No. 6414963 B1) discloses apparatus and method for providing multiple and simultaneous quality of service connects in a tunnel mode.
- Fan et al. (U.S. Patent No. 6408005 B1) discloses dynamic rate control scheduler for ATM networks.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H TRAN whose telephone number is (703) 308-7471. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WELLINGTON CHIN can be reached on (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 872-9314.

Phuc Tran  
Assistant Examiner  
Art Unit 2664

P.t  
July 24, 2002



WELLINGTON CHIN  
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